



UNITED STATES PATENT AND TRADEMARK OFFICE

ET

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,949	05/04/2005	Shinsuke Sugata	KAS.069	9635

48234 7590 08/14/2006

MEREK, BLACKMON & VOORHEES, LLC
673 S. WASHINGTON ST
ALEXANDRIA, VA 22314

EXAMINER

TALBOT, MICHAEL

ART UNIT PAPER NUMBER

3722

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/533,949

Applicant(s)

SUGATA ET AL.

Examiner

Michael W. Talbot

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 04 May 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

A copy of the cited two Japanese documents have not been received through WIPO, therefore the Examiner is requesting that a copy of each reference be furnished by the Applicant in response to this Office Action.

Claim Objections

2. Claims 1,2,5 and 8 are objected to because of the following informalities:

Claim 1 recites the limitation "the flow rate" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the flow rate" in line 12. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the longitudinal position" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the outside" in lines 2 through 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the wall" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "the longitudinal position" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3722

Claim 8 recites the limitation "the outside" in lines 2 through 3. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 1 and 2, the added claim limitation of "opening degree changing means for changing the degree of opening of plural openings at the rear ends of the cutting fluids" does not have proper support in the original disclosure. The figures and specification disclose multiple "opening degree changing means", each capable of changing the degree of opening of a single opening, but fail to clearly and concisely describe that each "opening degree changing means" is capable of changing the degree of opening of plural openings.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3722

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/37439 in view of Inoue '212. WO 99/37439 shows in Figures 1-4,6,12 and 13 a multi-shaft spindle head (103) comprising a plurality of spindles (111) having tools (119) at the tips thereof being disposed in a same direction, cutting fluid feed passages (b) provided to rotate centers of the spindles, a common closed chamber (108) provided to rear parts of the spindles in communication with rear ends of the cutting fluid feed passages for delivering supplied atomized lubricant fluid (Abstract) from the common closed chamber through the rear ends of the cutting fluid feed passages to the tips of the tools. WO 99/37439 shows the cutting fluid feed passages (b) can have an inner supply tube (25) retained in a non-rotating state even when the main spindle (111) is rotated (Abstract). WO99/37439 lacks an opening degree changing means for changing degrees of openings at the rear ends of the cutting fluid feed passages.

Inoue '212 shows in Figure 4 an opening degree-changing means (41) provided with inserted members (43) each having a tapered part (43a) for changing degrees of openings (42) at the rear ends of the cutting fluid feed passages (col. 7, lines 27-41) attached to an outer portion of the container (2) and adjusted from an outside position. In view of this teaching of Inoue '212, it would have been obvious to one of ordinary skill in the art to modify the multi-shaft spindle head of WO 99/37439 to include a needle control valve taught by Inoue '212 to improve machining accuracy and productivity through regulated control flow of the atomized fluid through the cutting tool to the work piece (col. 1, lines 11-19)

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/37439 in view of JP 05162046. WO99/37439 lacks an opening degree changing means for changing degrees of openings at the rear ends of the cutting fluid feed passages.

JP 05162046 shows in Figure 3 an opening degree changing means provided with inserted members (5) each having a tapered part (needle point) for changing degrees of

Art Unit: 3722

openings at the rear ends of the cutting fluid feed passages attached to an outer portion of the apparatus and adjusted from an outside position. In view of this teaching of JP 05162046, it would have been obvious to one of ordinary skill in the art to modify the multi-shaft spindle head of WO99/37439 to include a needle control valve taught by JP 05162046 to improve machining accuracy and productivity through regulated control flow of the atomized fluid to the cutting tool and work piece.

8. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/37439 in view of Eckardt '843. WO99/37439 lacks an opening degree changing means for changing degrees of openings at the rear ends of the cutting fluid feed passages.

Eckardt '843 shows in Figures 3-5 and 8 an opening degree changing means 9(Fig. 8) provided with inserted members (34) each having a tapered part (needle point) for changing degrees of openings at the rear ends of the cutting fluid feed passages attached to an outer portion of the apparatus and adjusted from an outside position (at knurled section). In view of this teaching of JP 05162046, it would have been obvious to one of ordinary skill in the art to modify the multi-shaft spindle head of WO99/37439 to include a needle control valve taught by Eckardt '843 to improve machining accuracy and productivity through regulated control flow of the atomized fluid to the cutting tool and work piece.

Response to Arguments

9. Applicant's arguments filed 23 June 2006 have been fully considered but they are not persuasive.

10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Furthermore, Examiner notes Applicant's arguments that these references do not teach or disclose, solely, the remaining claimed features of claims 1 and 2. However that is precisely why the Examiner is only relying upon their teachings for the addition of an "opening degree changing means" member to a fluid feed passage, as broadly interpreted, to change the flow rate into the fluid feed passage.

11. Examiner respectfully disagrees with Applicant's arguments that the above references, Inoue '212, JP 05162046 and Eckardt '843, do not teach the feature of an "opening degree changing means" to be added to a fluid feed passage, as broadly interpreted, for changing the flow rate of the fluid into the fluid feed passages. All the references, as described above, clearly teach a "member" added to a fluid fee passage, as broadly interpreted, to change the flow rate into a fluid feed passage.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3722

13. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mrs. Monica S. Carter, may be reached at 571-272-4475.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



MWT
Examiner
9 August 2006



MONICA CARTER
SUPERVISORY PATENT EXAMINER